

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 January 2005 (27.01.2005)

PCT

(10) International Publication Number
WO 2005/008248 A2

(51) International Patent Classification?: **G01N 33/579**,
33/569, C12Q 1/68, G01N 33/573, C07K 14/47, 14/79,
14/82, A61K 48/00, 38/00, 39/395

(21) International Application Number:
PCT/US2004/023014

(22) International Filing Date: 16 July 2004 (16.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/488,344 18 July 2003 (18.07.2003) US

(71) Applicant (for all designated States except US):
GEORGETOWN UNIVERSITY [US/US]; 37th &
O Streets, NW, Washington, DC 20057 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **SCHLEGEL,**
Richard [US/US]; 3 Elmwood Court, Rockville, MD
20850 (US).

(74) Agents: **TREANNIE, Lisa, M. et al.**; Ropes & Gray LLP,
One International Place, Boston, MA 02110-2624 (US).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AI., AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI,
SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished
upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: **DIAGNOSIS AND TREATMENT OF CERVICAL CANCER**

(57) Abstract: In certain aspects, the invention relates to methods of diagnosing cervical cancer by using a combination of certain biomarkers such as hTERT, IGFBP-3, transferrin receptor, beta-catenin, Myc-HPV E6 interaction, HPV E7, and telomere length. In other aspects, the invention relates to methods of detecting immortalization of cervical cells by using a combination of certain biomarkers. In yet other aspects, the invention relates to methods of classifying the grade of a cervical lesion for diagnostic and prognostic purposes in a female. In further aspects, the invention relates to methods of treating cervical cancer by administering a therapeutic agent that targets one or more of these biomarkers.



WO 2005/008248 A2